

Scaled data based on original data using  
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State  
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: FAIL-SAFE

Report Number: P544861

Luminaire Tested: **FMR-12-1-LD4-1STD-35-UNV-80-96-EDD**

Issue Date: 6/15/2021

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.



**Test Information**

Test Method: LM-79-08  
Report Number: P544861  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2102-135-5)  
Test Lab: INNOVATION CENTER  
Issue Date: 6/15/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: FMR-12-1-LD4-1STD-35-UNV-80-96-EDD  
Description: 1X1 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

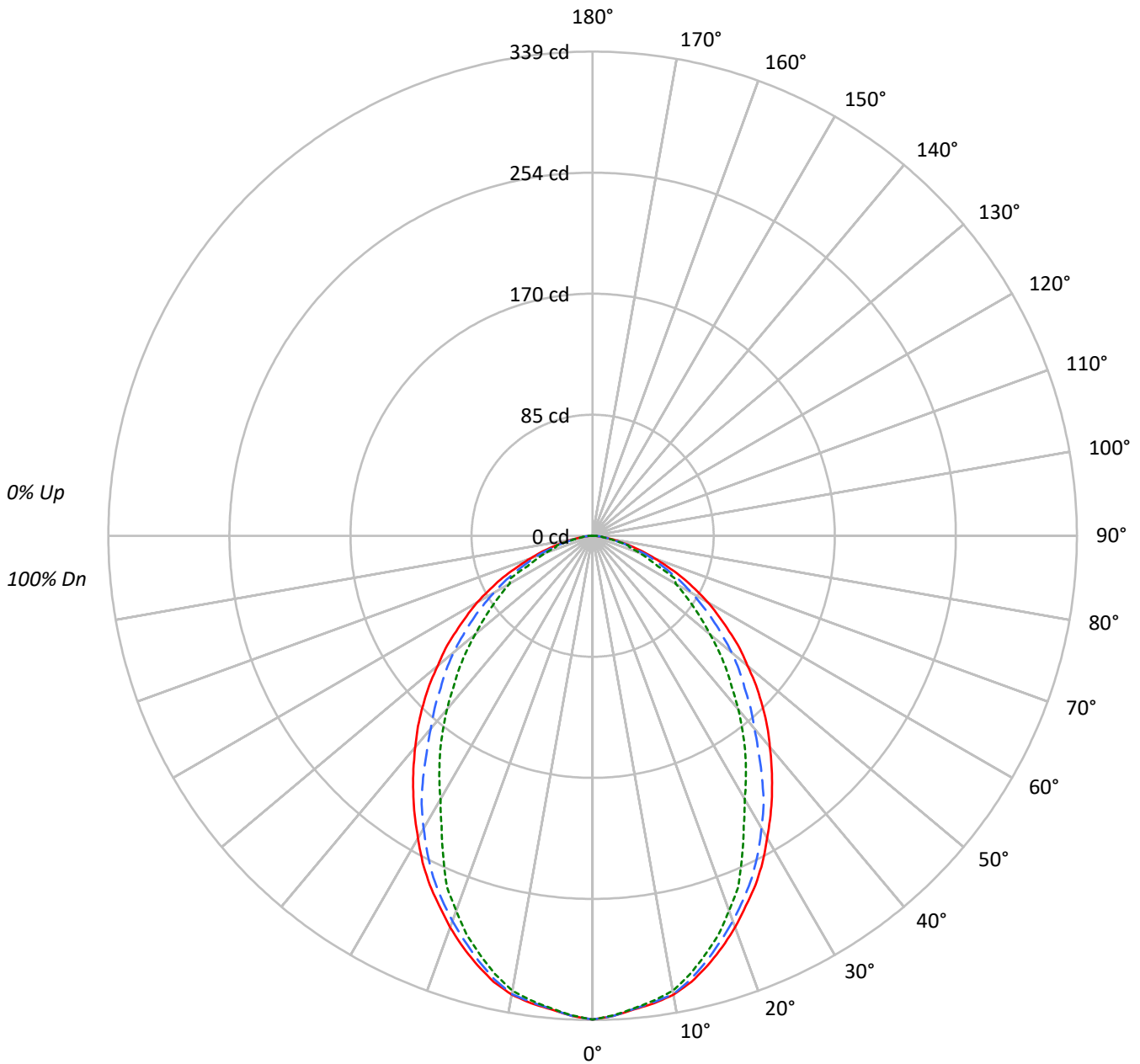
Lumens per Lamp: N/A  
Luminaire Lumens: 665.0 lumens  
Efficiency: N/A  
Efficacy: 80.1 lumens/watt  
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
CIE Type: Direct

Input Watts (W): 8.3  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT

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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20									20									20									20									
RC	80									50									30									10									0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0																
RCR																																					
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100																			
1	110	106	102	99	108	104	100	97	100	97	94	96	94	91	92	90	89	87																			
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77	75																			
3	93	84	77	71	91	82	76	70	79	74	69	77	72	68	74	70	67	65																			
4	86	75	67	61	84	74	66	61	72	65	60	69	64	59	67	62	58	56																			
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50																			
6	74	62	53	48	72	61	53	47	59	52	47	57	51	47	56	50	46	44																			
7	69	56	48	43	67	56	48	42	54	47	42	53	46	42	51	46	42	40																			
8	65	52	44	38	63	51	44	38	50	43	38	49	42	38	48	42	38	36																			
9	61	48	40	35	59	47	40	35	46	39	35	45	39	34	44	38	34	33																			
10	57	44	37	32	56	44	37	32	43	36	32	42	36	32	41	36	32	30																			

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	3646	3646	3646
5°	3597	3593	3588
10°	3565	3561	3536
15°	3469	3434	3387
20°	3341	3288	3198
25°	3204	3134	2939
30°	3038	2939	2647
35°	2876	2717	2449
40°	2713	2476	2229
45°	2557	2289	2015
50°	2368	2125	1797
55°	2190	1925	1610
60°	2006	1720	1442
65°	1765	1505	1276
70°	1454	1319	1086
75°	1156	1011	1061
80°	775	725	682
85°	482	580	679



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	31.5	4.7
10°-20°	86.5	13.0
20°-30°	119.8	18.0
30°-40°	127.7	19.2
40°-50°	116.5	17.5
50°-60°	91.3	13.7
60°-70°	59.5	8.9
70°-80°	26.4	4.0
80°-90°	5.6	0.8
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	237.9	35.8
0°-40°	365.6	55.0
0°-60°	573.5	86.2
0°-90°	665.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	665.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	339	339	339	339	339	
5°	333	332	332	332	332	32
15°	311	311	308	305	304	88
25°	270	268	264	254	248	124
35°	219	217	207	191	186	137
45°	168	164	150	138	132	129
55°	117	113	103	90	86	105
65°	69	65	59	60	50	68
75°	28	26	24	23	26	30
85°	4	4	5	5	6	5
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	338.7	338.7	338.7	338.7	338.7
2.5°	336.4	336.4	336.4	336.0	336.0
5°	332.9	332.5	332.5	332.1	332.1
7.5°	330.1	329.7	329.3	329.0	328.2
10°	326.2	326.2	325.8	323.9	323.5
12.5°	319.9	319.6	318.0	315.2	314.5
15°	311.3	311.3	308.2	305.1	303.9
17.5°	301.9	301.5	297.6	294.5	292.9
20°	291.7	291.0	287.0	282.0	279.2
22.5°	280.4	280.4	275.7	269.0	266.3
25°	269.8	268.3	263.9	254.5	247.5
27.5°	257.7	255.3	250.6	237.3	229.1
30°	244.4	243.2	236.5	219.3	213.0
32.5°	231.8	229.9	222.8	204.8	199.7
35°	218.9	217.3	206.8	191.1	186.4
37.5°	206.0	204.0	190.7	178.2	172.3
40°	193.1	190.7	176.2	164.9	158.6
42.5°	180.9	177.8	163.7	151.6	144.5
45°	168.0	164.5	150.4	137.8	132.4
47.5°	155.1	151.9	139.0	126.1	119.8
50°	141.4	138.6	126.9	114.0	107.3
52.5°	130.0	125.7	114.3	101.4	95.9
55°	116.7	113.2	102.6	90.5	85.8
57.5°	104.6	101.0	91.2	79.9	76.0
60°	93.2	88.1	79.9	70.1	67.0
62.5°	80.7	76.8	69.7	61.5	65.4
65°	69.3	65.4	59.1	60.3	50.1
67.5°	56.8	54.8	49.3	43.9	42.3
70°	46.2	43.9	41.9	36.0	34.5
72.5°	36.8	34.5	31.7	28.6	27.4
75°	27.8	25.8	24.3	23.1	25.5
77.5°	19.2	18.4	17.2	16.1	15.7
80°	12.5	12.1	11.7	11.4	11.0
82.5°	7.4	7.4	7.4	7.4	7.4
85°	3.9	4.3	4.7	5.1	5.5
87.5°	2.3	2.3	2.7	3.1	3.5
90°	0.0	0.0	0.0	0.0	0.0



Report Generated By 670246072 / DESKTOP-MV3F9LC







— 0°-180°    - - 45°-225°    - - - - 90°-270°







(END OF REPORT)